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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,291	08/04/2006	Yit-Shun Leung Ki	2590-161	8675
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EXAMINER GEORGE, PATRICIA ANN				
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1794				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/588,291

**Applicant(s)**

LEUNG KI, YIT-SHUN

**Examiner**

Patricia A. George

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 6--20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, and 6-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, and 6-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leech in view of Drinkwater, Gealer, and Olds.

Leech teaches it is known to use a shim to replicate (i.e. origination) by stamping an optically variable device (ODV) (i.e. transitory image relief pattern), wherein the origination shim is fabricated by a process comprising the successive steps of using a quartz photolithography plate which goes through steps of ebeam lithography, such as being coated, exposed, and then developed in a solvent (i.e. etch mask layer patterning) and then sputter deposit a thin film of nickel onto the resist, followed by a thicker electroplated layer of nickel onto the thin layer (i.e. the production of a nickel shim obtained by copying said origination shim through successive nickel electroforming steps, as in claim 6), then the dissolution of the resist to form the shin, and finally the shim is stamped into a Ag coin.

Leech fails to teach the substrate consists of 100 oriented monocrystalline silicon, as in claim 1, however use of such a substrate is well known in the art.

Olds teaches that a substrate used for micromachining consists of 100 oriented mono-crystalline. See paragraph 63.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of replication, as Leech, to include the use of any substrates known to be effective for replication methods, as applicants' claimed 100 orientation, because using this type of substrate is well known in the art of replicating ODV devices, as claimed by applicants'.

Leech fails to explicitly teach the process is "a micromachining process".

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of forming a shim for transferring patterns to coins, as Leech, to include the methods used are a micromachining process, as applicants' claim, because Leech teaches methods that are functional and well known to be effective for micromachining, and such an inference provides one of skill with a reasonable expectation to draw therefrom the inference that the process is a micromachining process. See MPEP 2144.01

Leech is silent as to the stamping method being hot, as applicants' claim.

Drinkwater teaches it is typical and preferred to use nickel shims to hot stamp coins. See column 3, lines 50+.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of stamping coins, as Leech, to include

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method steps that are known to be typical and preferred, such as applicants' specifically claimed step of hot pressing, because Drinkwater provides one of skill in the art with a reasonable expectation of success by teaching such steps are typical and preferred when using nickel shims to stamp coins.

Leech fails to teach a step of silicon etching that uses potassium hydroxide for a wet chemical etchant.

Gealer teaches it is long known to use potassium hydroxide to wet etch silicon when micromachining silicon.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the method of micromachining silicon, as the modified teaching of Leech, to include a step of wet etching with potassium hydroxide, as applicants' claim, because Gealer teaches wet etching with potassium hydroxide exhibits much higher silicon crystal plane etch rate ratios and for this reason it is especially useful for groove etching in silicon.

As to claim 7, the modified teaching of Leech obtains a shim, as discussed above.

As to claims 8-18, and 20, it has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. The recitation of a new intended use for an old product does not

make a claim to that old product patentable, see *In re Schreiber*, 44 USPQ2d 1429 (Fed. Cir. 1997).

As to claim 19, the modified teaching of Leech teaches an object for carrying a transitory image structure. See discussion above, and the abstracts of both Leech and Drinkwater.

### ***Response to Arguments***

Applicants' assert that the newly amended limitations were not shown by the references of record. The examiner agrees and offers a new grounds of rejection above.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia A. George whose telephone number is (571) 272-5955. The examiner can normally be reached on Tue. - Fri. between 9:00 am and 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patricia A George  
Examiner  
Art Unit 1794

/Patricia A George/  
Examiner, Art Unit 1794

/KEITH D. HENDRICKS/  
Supervisory Patent Examiner, Art Unit 1794